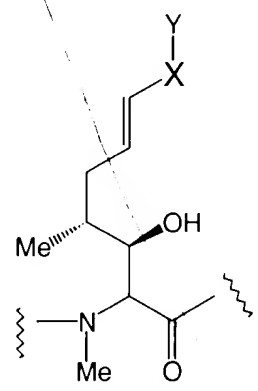
Abstract

The present invention relates to a cyclosporin analog of the following formula (I) or a pro-drug or pharmaceutically acceptable salt thereof:

A---B---Sar-MeLeu-Val-MeLeu-Ala---U---MeLeu-MeLeu-MeVal
1 2 8

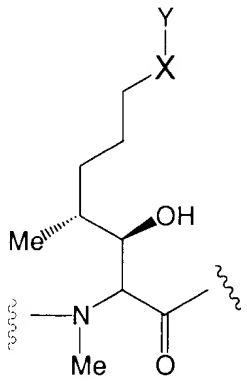
(I)

In particular, residue A maybe represented by either formula A1 or A2 as illustrated below:



(A1)

or



(A2)

where X is absent, -C1-C6-alkyl- or -C3-C6-cycloalkyl-; Y is selected from the groups: aryl, substituted aryl, heteroaryl, and substituted heteroaryl; residue B is -αAbu-, -Val-, -Thr- or -Nva-; and residue U is -(D)Ala-, -(D)Ser-, -[O-(2-hydroxyethyl)(D)Ser]-, -[O-acyl(D)Ser]- or -[O-(2-acyloxyethyl)(D)Ser]-. In a second embodiment, the present invention relates to the use of the cyclosporin analogs of the present invention or a pro-drug or pharmaceutically acceptable salt thereof in pharmaceutical compositions for the treatment of autoimmune diseases or for the prevention of organ transplantation rejection in a subject. In a third embodiment, the present invention relates to processes for the production of novel cyclosporin analogs of the present invention. The present invention also contemplates method(s) of treatment of autoimmune diseases or prevention of organ transplant rejection in a subject by administering to the subject therapeutically effective amounts of the cyclosporin analogs of the present invention with or without the concurrent use of other drugs or pharmaceutically acceptable carriers or excipients.